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Indian Standard

SPECIFICATION FOR AIRCRAFT SEAT RAILS AND PINS

1. Scope — This standard specifies the dimensions, materials and load ratings of aircraft seat rails and pins.

2. Material

- 2.1 The rails shall be of extruded aluminium alloy No. 24345, Grade II conforming to IS: 7428-1974 'Specification for aluminium alloy extruded bars, rods and sections for aircraft purposes' and shall be annodized.
- 2.2 The seat pins shall be made of high carbon steel conforming to grade 40 C8 of IS: 1570 (Part 2)-1979 'Schedules for wrought steels: Part 2 Carbon steels (unalloyed steels)'. The pins shall be cadmium plated or galvanized to protect them against corrosion.
 - 2.2.1 Hardness of the pin shall not be less than 330 HV.
- 2.3 Any other material used for the manufacture of rails or pins shall meet the statutory requirements.

3. Dimensions

- 3.1 The dimensions of aircraft seat rail shall be as given in Fig. 1. Capacities shown are for a single stud, loaded vertically with mounting screws in each adjacent cut-out.
 - 3.1.1 The overall length of rails shall be specified by the purchaser.
- 3.2 The dimensions of the seat pin or stud shall comply with those given in Fig. 2.
- 3.3 Sharp edges and corners shall be rounded off.
- 4. Marking The seat rails and pins shall be marked with the following information:
 - a) Name or trade-mark of the manufacturer;
 - b) Part number;
 - c) Light/Medium/Heavy duty for rails; and
 - d) Aircraft regulatory agency requirements (DGCA/Ministry of Defence).
- 4.1 ISI Certification Marking Details available with the Indian Standards Institution.

EXPLANATORY NOTE

Extended aluminium sections with grooves at regular distances to provide for the attachment of fitting using the stud and plunger locking technique are fixed on the air cargo pallets for restraining the palletized cargo from any movement in transit. Depending upon the vertical load transmitted to the railing through the single mounting pins, the seat rails has been categorised as light, medium and heavy duty. To achieve interchangeability in the cargo restraint system, the assistance has been derived from ISO/DIS 7166 'Aircraft — Rail and stud configuration for passenger equipment and cargo restraint' issued by the International Organization for Standardization (ISO).

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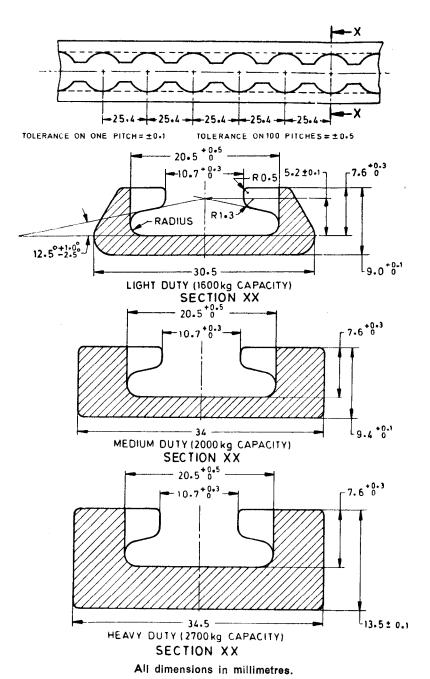


FIG. 1 AIR CRAFT SEAT RAILS

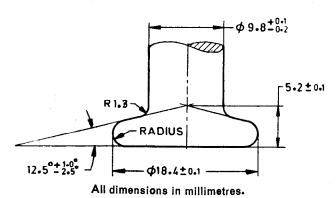


FIG. 2 AIR CRAFT SEAT PIN